Remarks/Arguments

Reconsideration of this application is requested.

The Examiner has indicated that if claims 6, 14, and 22 should be found allowable , claims 7, 13, 15 and 23 would be objected to under 37 CFR §1.75 as being substantial duplication thereof.

Claim 6 depends on claim 5, which depends on claim1, and claim 7 depends on claim 1. Claim 6 includes limitations which are not claimed in claim 7. Hence claim 6 is not a substantial duplicate of claim7.

Claim 13 depends on claim 9 and claim 14 depends on claim 13. Thus, claim 13 is not substantial duplicate of claim 14.

Claim 14 includes in its last line the limitation “or said alternate service provider”. The foregoing limitations is not claimed in claim 15. Thus, claim 14 is not a substantial duplicate of claim 15.

Claim 22 depends on claim 21, which depends on claim 17 and claim 23 depends on claim 17. Claim 22 includes limitations which are not contained in claim 22. Hence claim 22 is not a substantial duplicate of claim 23.

Claims 1, 6-7, 9, 13-15, 17, and 21-24 have been rejected by the Examiner under 35 USC§103(a) as being unpatentable over Ballard (U.S. Patent No. 6,078,960) in view of Swildens et. Al. (U.S. Patent No. 6,484,143).

Ballard discloses the following in column 6 lines 31-64;

> “Referring to FIG.6, a method for client-side load balancing includes a step **50** in which a client computer **14** requests to access data over the

client-server network **10.** At another step **52**, the client computer **14** executes a server selection function to determine which server **12** to access. A processor **28,** for example, reads the load balance list **54** resident on the client computer **14**. The server selection function determines which server identified in the list **54** is to be accessed to handle the pending data request. For an embodiment in which there is a load percentage included in the list **54**, such percentages are seeds for the server select function. Over time as the server select function is executed over and over, the actual load percentage for each server computer in the list **54** converges to the specified percentage in the list **54**. According to an alternative scheme, the load select function may randomly select one of the servers in the list **54** or perform a round-robin selection, or perform some mathematical computation.
Once a server is selected, at step **56** a network connection is attempted to connect the client computer **14** to the selected server computer **12**. At step **58** the connect operation is tested to determine if successful. If the connection is successful, then at step **60** the data is read from the server computer **12** and downloaded to the client computer **14**. In addition, during each connection or at regularly determined times or connections, an updated load balance list also is received from the accessed server computer **12**. The updated list replaces prior load balance list stored at the client's computer **14**. As shown in FIG. 4B the updated load balance list may add an additional server and alter the load balance percentages. Alternatively, the updated list may remove a server or just alter the load balance percentages. Thus, one or more servers can be added or removed and load balance percentages can be altered."

Ballard discloses the following in column 6 lines 3-18;

> "Each client computer **14** stores a load balance list. Referring to FIG. 4A, in one example, common data is stored on each of ISP servers 1-4. The load balance list includes an identification of the server computers, such as an address. In some instances the list also include a respective load percentage for each of the listed ISP servers computers. The percentage specified in the list for any given server computer may be the same or different than for the other servers identified in the list. Preferably the percentages should add up to 100%. FIG.4A, for example shows a load balance list in which the load is to be divided equally among four ISP server computers **18** (i.e., ISP servers 1-4). Each server in the list includes common data that may be accessed by a client computer. In some embodiments, servers may be identified as uplink servers, downlink servers or both uplink and downlink servers."

Ballard discloses a list which appears on a computer which is over time the load balance of the list may be refined.

Swildens discloses the following in Column 17 lines 42-54.

> "A server name, physical location, and network location identify each location. For example, the last location in FIG. 6D is labeled as "server-4/sterling/exodus." This label identifies a server on the Exodus network located in Sterling, VA., USA.
> After all the overall timetable, details for each location are presented in individual tables. FIG. 5 shows a table containing the details for the location "server-14, dc, cw, a server located on the Cable & Wireless Network in Washington D.C., USA. The IP address of the actual server is shown in the heading of the table so you can perform additional tests, if needed, (trace route and so on) on the actual server performing the test. The location table in FIG. 6E shows data for the www.speedera.com website."

Swilden discloses an IP address of the actual server so that additional tests may be performed.

Neither Ballard or Swildens taken separately or together disclose or anticipate the invention claimed by Applicant in claims 1, 9 and 17 as amended and those claims dependent thereon. The cited patents do not disclose or anticipate steps c2) of claims 1, 9 and 17 as amended namely: accessing said table to retrieve a service provider address associated with a service provider location code geographically closest to said retrieved location code so that utilization of the service providers is systematically load balanced with respect of the geographic location of the client.

An advantage of the foregoing claim limitation is that a server that is geographically close to the client may be utilized to distribute the work load on a geographic basis.

Claims 2, 10 and18 have been rejected by the Examiner under 35 USC § 103(a) as being unpatentable over Ballard (US Patent No. 6,078,960) in view of Swildens et. al. (US Patent No. 6,484,143) further in view of Leon (US Patent No. 6,424,954).

Leon discloses the following in column 1 line 49-column 2 line 27.

> "The present invention relates to the field of postage metering systems, and more particularly to a portable, secure, low cost, and flexible postage metering system.
> A postage meter allows a user to print postage or other indicia of value on envelopes or other media. Conventionally, the postage meter can be leased or rented from a commercial group (e.g., Neopost Inc.). The user purchases a fixed amount of value beforehand and the meter is programmed with this amount. Subsequently, the user is allowed to print postage up to the programmed amount.

Historically, postage meters have been dedicated, stand-alone devices, capable only of printing postage indicia on envelopes (or labels, in the case of parcels). These devices normally reside at a single user location and only provide postage metering for that location. Such postage meters often require the user to physically transport the device to a post office for resetting (i.e., increasing the amount of postage contained in the meter). An advance over this system is the ability to allow the user to reset the meter via codes that are provided by either the manufacturer or the postal authority once payment by the user had been made.

Modem electronic meters are often capable of being reset directly by a registered party on-site (at the user's location) via communications link. A system that performs meter resetting in this manner is known as a Computerized Meter Resetting System (or "CMRS"). The party having authority to reset the meter and charge the user (usually the manufacturer or the postal authority) thus gains access to and resets the meter.

Even with these advancements, postage meters are still, for the most part, restricted to use at a single physical location. As such devices are dedicated (and rather sophisticated in their fail-safe attributes and security), their price tends to be prohibitive for small entities. Moreover, the items requiring postage must often be brought to the device because of the device's physical size and the need for supporting connections (i.e., power, communications, and the like).

As can be seen, a postage metering system that is portable, low-cost, secure, and flexible in operation is highly desirable. Moreover, a system that centralizes both postage accounting and security features is also highly desirable. Such a system would allow the printing of postage indicia at locations that are convenient to the end-user by

> allowing the user to take a portion of the system to the item in need of postage rather than the reverse."

Contrary to the Examiner's a mailing device does not use a zip code as a unique identifier. Many mailing devices are located in each zip code. Furthermore, the art cited by the Examiner makes no suggestion that a mailing device may be used in step c(2) of independent claims 1, 9, and 17 as amended.

Claims 3, 11 and 19 have been rejected by the Examiner under 35 USC § 103 (a) as being unpatentable over Ballard (US. Patent No. 6,078,960) in view of Swildens et. al. (US. Patent No. 6,484,143) in further view of Rabinowich (US. Patent No. 6,256,675).

Rabinowich discloses the following in column 7 line29-54;

> "A distance metric is determined for each host at which the requested replica is stored, step **203**. The distance metric measures the cost of communicating between the requester and the host. For example, in one embodiment, the distance metric is proportional to the latency between the requester and the host that stores a replica of the requested object. In another embodiment, the distance metric is inversely proportionate to the bandwidth of the channel between the requester and the host.
>
> The request distributor selects a host that stores a replica of the requested object to respond to the request based upon the request metric and the distance metric of the host in relation to the request metric and distance metrics of the other hosts that also store replicas of the requested object, step **204**.
>
> In one embodiment, the request distribution decision as to which host to assign the request is made in accordance with the method shown in FIG. 3. A host p is identified that stores a replica of the requested object and that has the best distance metric m in relation to the

> requester, step **301**. For example, in one embodiment, the host that is geographically closest to the requester will be determined to have the best distance metric in relation to the requester. In another embodiment, the host which can communicate the least expensively with the requester will be determined to have the best distance metric in relation to the requester."

The art cited by the Examiner does not disclose or anticipate accessing said table to retrieve a service provider address associated with a service provider location code geographically closest to said retrieved location code: so that utilization of the service providers is systematically load balanced with respect to the geographical location of the client.

Claims 4, 12, and 20 have been rejected by the Examiner over Dlugos (U.S. Patent No. 4,122,526).

Dlugos discloses the following in Column 1, line 37-53.

> Through extensive publicity for and easily accessible information on the zip code system, the Postal Service has accustomed people to learn or obtain the zip code of the destinations for their mail. However, few people know which zone designates the destination of their mail. Therefore, the Postal Service publishes charts for approximately 600 mail origination locations which show destination zones as a function of the three digit prefix of destination zip codes. Other charts tabulate the postage as a function of different weight-zone combinations. A user must, therefore determine the proper zone for the destination of this parcel from one chart and after weighing the parcel, determine the proper postage from the other chart. The present invention makes this postage calculation operation easier and faster."

Dlugos converts zip code information into postal zone information.

The art cited by the Examiner does not disclose or anticipate accessing said table to retrieve a service provider address associated with a service provider location code geographically closest to said retrieved location code: so that utilization of the service providers is systematically load balanced with respect to the geographical location of the client.

Claims 5, 13, and21 have been rejected by the Examiner under 35 USC § 103(a) as being unpatentable over Ballard (US Patent No. 6,078,960) in view of Swildens (US Patent No. 6,484,143) in further view of Rune (US Patent No. 6,304,913).

Rune discloses the following in lines 6-38 of column 5:

> "Referring to FIG. **2**, there is illustrated a simplified flowchart of the selection method **200** used to select the closest or most appropriate alternative server **158***b* from the viewpoint of the requesting host **152***a*. Beginning at steps **202** and **204**, the host name **114** is assigned (step **202**) to the set of alternative servers **158***b* and **158***e* and a unique IP address **116** is assigned (step **204**) to each alternative server so that no two alternative servers have the same IP address. For example, the set of alternative servers **158***b* and **158***e* can have the host name **114** of "mirror servers" and IP addresses **116** of "209.180.55.2" (alternative server **158***b*) and "209.180.55.9" (alternative server **158***e*).
>
> At step **206**, the assigned host name **114** and the unique IP addresses **116** are stored in some or all of the look-up tables **111** of the DNS servers **156***a*-***156***e. The DNS servers **156***a*-**156***e* can be different levels of hierarchy such that one DNS server (e.g., DNS server **156***a*) may not store a particular host name and IP address while another DNS server (e.g., DNS server **156***e*) a step lower in the hierarchy may store the particular host name and IP addresses.

At step **208**, the requesting host (e.g., requesting host **152***a*) transmits a translation request containing the host name **114** of the alternative servers **158***b* and **158***e* to one of the DNS servers (e.g., DNS server **156***a*). In the event one of the local DNS servers (e.g., DNS server **156***a*) does not recognize the host name **114** transmitted in the translation request, then the local DNS server **156***a* would refer the request to another DNS server (e.g., DNS server **156***c*) known as a DNS root server which locates yet another

DNS server (e.g., DNS server **156***e*) that is a step lower in the hierarchy which may recognize the transmitted host name.

Rabinovich discloses the following in lines 7-29 of column 6:

"A request distributor **101** is connected to a network **102**. Hosts **103** **104** and **105** are also connected to the network **102**. A host is defined to be a computer that stores a replica of an object. An object is a piece of information. A replica is a physical embodiment of an object. For example, a replica is a file stored on a medium that is adapted to be read electronically. One example of a replica is a graphics file stored on a hard disk that is part of a computer. Another example is an executable program stored in random access memory.

The request distributor is comprised of a processor **106** and a memory **107** that stores request distribution instructions **108** adapted to be executed by the processors **106** to perform the method in accordance with the present invention. In one embodiment, request distribution instructions **108** are adapted to be executed by processor **106** to receive a request for an object from a requester **109** connected to the network **102** and distribute the request to a host (e.g., host **103**) that stores a replica of the requested object in accordance with the method of the present invention. A replica is replicated to a second host when

> a replica of the object is newly recognized to be stored at the second host. Processor **106** is coupled to memory **107**."

In the invention disclosed by Rune, DNS servers 156a-156e are involved at the beginning of the operation. In the invention disclosed by Rabinovich, request distributor 101 is used in the beginning of the operation.

The inventions disclosed by Rune and Rabinovich, taken separately or together, do not disclose or anticipate the invention claimed by Applicant's invention in claims 1, 9 and 17, as amended, and those claims dependent thereon. The cited references do not disclose or anticipate steps c2) and d) of claims 1, 9 and 17 as amended, namely, accessing said table to retrieve a service provider address associated with a service provider location code geographically closest to said retrieved location code: so that utilization of the service providers is systematically load balanced with respect to the geographical location of the client.

In other words, Rune's DNS servers 156a-156e and Rabinovich's request distributor 101, which are equivalent to Applicant's seed system 34, are used in a different manner. In Applicant's invention, the table is used first. If the information is available in the table, there is no need to go to the seed system. The seed system is only used as a last resort, when the information from the table is not correct and has to be updated. Consequently, Applicant's claimed invention is faster than the inventions disclosed by Rune and Rabinovich, since Rune's DNS servers 156a-156e and Rabinovich's request distributor 101 handle a larger amount of traffic than Applicant's seed system 34, which takes additional time.

The cited patents do not disclose or anticipate new claims 25-27.

In view of the above, claims 1-7, 9-15 and 17-27, as amended, are patentable. If the Examiner has any questions, would he please contact the undersigned at the telephone number noted below.

Respectfully submitted,

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